

IN THE CLAIMS

Please amend the claims as follows:

1. (original) Transmitter ( $Tx_1$ ,  $Tx_2$ ) for simultaneously transmitting at least a first ( $s'_1$ ) and a second ( $s'_2$ ) signal, the first signal ( $s'_1$ ) being modulated according to a first modulation constellation, the second signal ( $s'_2$ ) being modulated according to a second modulation constellation, wherein the transmitter is arranged to pre-code at least the first signal ( $s'_1$ ) through a modification of the first modulation constellation so as to prevent a correlation between the at least first ( $s'_1$ ) and second ( $s'_2$ ) simultaneously transmitted signals.
2. (original) Transmitter ( $Tx_1$ ,  $Tx_2$ ) according to claim 1, wherein the pre-coding of at least the first signal ( $s'_1$ ) comprises a rotation of the first modulation constellation through a first angle.
3. (original) Transmitter ( $Tx_1$ ,  $Tx_2$ ) according to claim 1, wherein the pre-coding of at least the first signal ( $s'_1$ ) comprises a change of the order of the first modulation constellation.

4. (original) Transmitter ( $Tx_1$ ,  $Tx_2$ ) according to claim 3, wherein the pre-coding further comprises a change of the number of simultaneously transmitted signals ( $s'_1$ ,  $s'_2$ ).

5. (original) Transmitter ( $Tx_1$ ,  $Tx_2$ ) according to claim 1, wherein the transmitter is arranged to pre-code at least the first ( $s'_1$ ) signal after receipt of a first signal from a receiver ( $Rx_1$ ,  $Rx_2$ ) of the at least first ( $s'_1$ ) and second ( $s'_2$ ) simultaneously transmitted signals.

6. (original) Transmitter ( $Tx_1$ ,  $Tx_2$ ) according to claim 1, wherein the transmitter is arranged to transmit a second signal to a receiver ( $Rx_1$ ,  $Rx_2$ ) of the at least first ( $s'_1$ ) and second signals ( $s'_2$ ) in order to notify the receiver about the pre-coding of at least the first ( $s'_1$ ) signal.

7. (currently amended) Transmitter ( $Tx_1$ ,  $Tx_2$ ) according to claim ~~1,2,3 and 4~~, wherein the first and second modulation constellations are M-ary QAM modulation constellations.

8. (original) Receiver ( $Rx_1$ ,  $Rx_2$ ) for simultaneously receiving at least a first ( $s'_1$ ) and a second ( $s'_2$ ) signal from a transmitter ( $Tx_1$ ,  $Tx_2$ ), the first received signal ( $s'_1$ ) being modulated

according to a first modulation constellation, the second received signal ( $s'_2$ ) being modulated according to a second modulation constellation, in which at least the first received signal ( $s'_1$ ) is pre-coded through a modification of the first modulation constellation so as to prevent a correlation between the at least first ( $s'_1$ ) and second ( $s'_2$ ) simultaneously received signals.

9. (original) Receiver ( $Rx_1, Rx_2$ ) according to claim 8, wherein the pre-coding of the first ( $s'_1$ ) received signal comprises a rotation of the first modulation constellation.

10. (original) Receiver ( $Rx_1, Rx_2$ ) according to claim 8, wherein the pre-coding of the first ( $s'_1$ ) received signal comprises a change of the order of the first modulation constellation.

11. (original) Receiver ( $Rx_1, Rx_2$ ) according to claim 8, wherein the pre-coding further comprises a change of the number of simultaneously received signals ( $s'_1, s'_2$ ).

12. (original) Receiver ( $Rx_1, Rx_2$ ) according to claim 8, wherein the receiver is arranged to transmit a first signal to the transmitter in a response to which the transmitter is arranged to pre-code at least the first ( $s'_1$ ) signal.

13. (original) Receiver ( $Rx_1$ ,  $Rx_2$ ) according to claim 8, wherein the receiver is arranged to receive a second signal from the transmitter ( $Tx_1$ ,  $Tx_2$ ) in a response to the transmitter pre-coding at least the first ( $s'_1$ ) signal.

14. (currently amended) Receiver ( $Rx_1$ ,  $Rx_2$ ) according to claim 8, ~~9, 10 and 11~~, wherein the first and second modulation constellations are M-ary QAM modulation constellations.

15. (original) Transceiver comprising a transmitter according to claim 1.

16. (currently amended) Transceiver according to claim 15, further comprising a receiver ~~according to claim 8~~, ( $Rx_1$ ,  $Rx_2$ ) for simultaneously receiving at least a first ( $s'_1$ ) and a second ( $s'_2$ ) signal from a transmitter ( $Tx_1$ ,  $Tx_2$ ), the first received signal ( $s'_1$ ) being modulated according to a first modulation constellation, the second received signal ( $s'_2$ ) being modulated according to a second modulation constellation, in which at least the first received signal ( $s'_1$ ) is pre-coded through a modification of the first modulation constellation so as to prevent a correlation

between the at least first ( $s'_1$ ) and second ( $s'_2$ ) simultaneously received signals.

17. (original) Wireless device comprising a transmitter according to claim 1.

18. (original) Telecommunication system comprising a transmitter according to claim 1.